Before the
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C.

In the Matter of	)	
	)	
Revision of the Commission's Rules	)	CC Docket No. 94-102
To Ensure Compatibility with	)	RM-8143
Enhanced 911 Emergency Calling Systems	)	

ADDITIONAL COMMENTS OF
SOUTHWESTERN BELL MOBILE SYSTEMS, INC.

Southwestern Bell Mobile Systems, Inc. files these comments in response to the Commission's request for additional comments after the filing of certain ex parte presentations.[1] Specifically, comments are requested to "assist the Commission in determining whether to revise Section 20.18(b) of the Commission's Rules, requiring carriers to transmit 911 calls which include a Code Identification without validation of the call, and process all 911 calls (regardless of whether a Code Identification is included as part of the call transmission) where requested by the administrator of the designated Public Safety Answering Point".[2]

SBMS' position on these two particular points has not changed since the filing of its Petition for Reconsideration and/or Clarification[3] of the Report and Order.[4] Specifically:

[1] Public Notice issued July 16, 1997 in CC Docket 94-102. ("Public Notice").
[2] Public Notice pp. 1-2.
[3] Petition for Reconsideration and/or Clarification filed by Southwestern Bell Mobile Systems, Inc. in CC Docket 94-102. (Filed September 3, 1996.
[4] In The Matter of Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket 94-102, RM-8143, Report and Order and Further Notice of Proposed Rulemaking, Released July 26, 1996. ("Report and Order").

1. The Commission needs to recognize that imposing a prohibition on performing any validation function on a 911 call is inconsistent with certain deployed technologies, including certain Lucent and Ericsson technology. Rather, on a 911 call such switches perform some functions that may be deemed "validation" however they do not act on such functions and the call is passed regardless of the outcome of such function. Thus, while the switch does perform some "validation" function on the call, the result that the Commission is looking for is achieved without delay—all 911 calls are passed. SBMS' point is quite simple—**the internal functions that the switch may be performing is not relevant—it is the result which is relevant and the result is that all 911 calls are passed.**
2. Current available wireless technology does not support differing decisions by PSAPs off of the same switch regarding whether to accept all 911 calls or only "code-identified calls".

There is nothing in the ex partes filed which changes SBMS' views on these issues. SBMS however, to aid the Commission's analysis of the issues responds to the particular questions addressed in the ex partes as they relate to AMPs, TDMA and GSM technologies.

1. What are the relevant technologies, services, and switch vendors:

SBMS agrees with the information provided by the Wireless E911 Coalition.

2. For each of these technologies, what codes are programmed into the handset and transmitted to the cell site or switch?

SBMS agrees with the information provided by the Wireless E911 Coalition.

3. What is the source of these codes?

SBMS agrees with the information provide by the Wireless E911 Collation.

4. Which of these codes or combinations of codes uniquely identify the handset and subscriber?

SBMS agrees with the information provided by the Wireless E911 Coalition.

5. Which of these codes or combination of codes can be used for call back by a PSAP--Directly, as in the case of a NANP code--Indirectly through database lookup?

SBMS agrees with the information provided by the Wireless E911 Coalition. The response to this question is easy to analyze given a basic understanding of the standards the Commission established for the development of cellular service. As the Coalition notes, the Mobile Identification Number (MIN) of the handset has been populated by a unique North American Numbering Plan (NANP) number. Pursuant to FCC standards, delivery of a call to a cellular phone is accomplished by matching the mobile telephone number with the corresponding unique Electronic Serial Number (ESN) of the handset. SBMS disagrees with the Ad Hoc Alliance for Public Access to 911 position that it would be easy to allow call backs to unauthorized roamers, handsets with invalid MINs, handsets with valid but expired MINs and others by use of pseudo MINs. The Ad Hoc Alliance confuses "call back" capability with "call delivery." Pseudo MINs are used in the roaming context for "call delivery" meaning the numbers are used for a few seconds to deliver a call then made available again. The pseudo MINs are not permanently assigned to the roaming customer and are not assigned at the time the customer places a call. Thus, the use of pseudo MINs today for "call delivery" does not support a conclusion that they can easily be used for "call back" purposes.

6. Describe the validation process for each technology. Is there more than one validation, e.g., for service initialization, credit worthiness, etc.?

SBMS basically agrees with the information provided by the E911 Wireless Coalition with one critical distinction. Specifically, the Coalition response to this question overlooks the fact that for some technologies a validation function may occur, however the function is not acted upon and the call is passed regardless of the result. Thus, SBMS disagrees with a literal reading of the statement that "Basically the mobile/subscriber is fully compliant and allowed to process calls or the mobile/subscriber is not compliant and is not allowed to pass calls".[5] Likewise, SBMS disagrees with GTE's statement in response to Question 7 that "911 calls bypass all of the above validation checks, today". As noted, it is SBMS' understanding that some Ericsson and Lucent switches perform validation functions on such a call but can be set to not act on the results thus allowing all 911 calls to pass, if desired. SBMS agrees however with the principal point being made by both the Wireless E911 Collation and GTE—that is, the switches today can not be set to act only on "select" validation functions.

7. Can the wireless switch pass calls to PSAPs based on whether one or more of these codes is initiated in the handset? Which ones? Does this answer differ because, e.g., of the model of the switch, software, or other factors?

SBMS agrees with the information provided by the Wireless E911 Coalition but would rephrase the initial sentence to state that "In today's environment, the choice to deliver all calls or only **successfully** validated calls is currently made as a business

[5] Wireless E911 Coalition Ex Parte p. 7.

decision.". The inclusion of the word "successful" is consistent with the fact that some technologies perform but do not act on validation checks when set to send all 911 calls. SBMS thus would include the word "successful" anywhere the Coalition uses the term "validated calls".

8. **It has been suggested to us that wireless switch technologies generally allow only two choices in the handling of 911 calls - either all calls are transmitted or only calls that are successfully validated can be transmitted. This is inconsistent with the understanding of the Commission in the Order which required that code identified calls be transmitted.**

    - **Do you consider it impossible, at the present time, for wireless switches to route all 911 calls from handsets that are code-identified to PSAPs? For which technologies?**

SBMS basically agrees with the information provided by the Wireless E911 Coalition with one exception. The Coalition states that "It is possible at the present time for wireless switches to route all 911 calls to a PSAP because validation checks are not required to be performed for all 911 calls today". Again, SBMS believes that the Coalition may be overlooking the fact that some switches may perform a validation check but just not act on the result.

- **In the all calls scenario, can you perform a subsequent validation once a call has been passed to the PSAP?**

No. SBMS agrees with the information provided by the Wireless E911 Coalition.

- **Is it possible to modify switch software to route code-identified calls?**

No. SBMS agrees with the information provided by the Wireless E911 Coalition.

- **In a scenario where the wireless carrier is attempting to validate calls (as opposed to sending all calls and bypassing the validation process), is it possible to disregard the result of a validation attempt for E911 calls? What would you gain by doing this as opposed to just doing all calls?**

As the Wireless E911 Coalition acknowledges, "some switches attempt to validate all calls and ignore the results when the validation fails".[6] SBMS' understanding is that on switches manufactured by Lucent (formerly AT&T), Ericsson and possibly others it is not currently possible to merely "bypass the validation process" using existing technology. The Lucent and Ericsson switches, however, can be set to not act on any validation check and thus all 911 calls arriving at the switch are sent. Thus, arguably the calls can be said to have gone through a validation check however the practical result is the same as if the calls were not subject to a validation check—the calls are all sent on to the 911 PSAPs.

What is gained "by doing this as opposed to doing just all calls" is that carriers using Lucent, Ericsson and possibly other technologies would be able to rely on existing deployed technology to achieve the same practical result that would be achieved by "just doing all calls". Requiring carriers who have deployed such technologies to send the call without any validation function being performed would require the carriers to request the manufacturers to engineer and develop modifications and enhancements to allow the deployed switches to pass the 911 calls without any validation functions being performed.

[6] Wireless E911 Coalition Ex Parte p. 7.

The carriers would then have to purchase and deploy such modifications and presumably seek cost recovery. Such an exercise is inefficient and uneconomical given the fact that the switches can achieve the same practical effect today—that is not acting on the validation and sending all 911 calls. As the Wireless E911 Coalition notes, the existing process does not delay the processing of the call to the PSAP and achieves the same result of all 911 calls being sent. To require modifications to existing and deployed technology without any showing of a resulting practical benefit is arbitrary and capricious. The functions the switch is performing internally is not relevant—it is the practical result which is relevant. The practical result, as to the switches that perform a validation function and then not act on the result, is that all 911 calls are sent using existing deployed technologies.

SBMS, for the reasons stated above, thus disagrees with GTE's general statement that "the switch determines if the caller is trying to reach emergency services, and the validation checks are bypassed right then". The statement is not applicable to all switches.

9. It has been suggested that if only service initialized calls are routed to PSAPs, the calls must be validated for some technologies, e.g., AMPS and CDMA.

- **Is this correct?**

Yes. SBMS agrees with the information provided by the Wireless E911 Coalition.

- **Where calls must be validated, what does this mean? For example, if a caller is a roamer without a roaming agreement, would the validation process delay the call? Would the caller be required to provide a credit card number or other information?**

SBMS agrees with the information provided by the Wireless E911 Coalition. As explained in the response to Question 8 above setting the switch not to act on the validation occurs today to enable all 911 calls to be sent. SBMS agrees with the Wireless E911 Coalition comments that such does not result in any delay. Again, GTE's response is not applicable to all switch manufacturers.

- **Can some or all switches be set to validate, but ignore the result in the case of 911 calls (in order to avoid delay?**

See response to Question 8, last bullet.

10. **If a switch is set to transmit all 911 calls to PSAPs, can it also transmit (for valid customers): 7 digit ANI, 10 digit ANI, 10 digit ANI and 10 digit pseudo-ANI?**

SBMS agrees with the information provided by the Wireless E911 Coalition.

11. **Can the system selectively route calls differently to different PSAPs, e.g., all calls to some PSAPs and only validated calls to others? Does this capacity vary depending on the network capability, radio capability, and/or model of switch? The software?**

No. SBMS agrees with the information provided by the Wireless E911 Coalition.

12. **Do you believe more time will be needed to successfully implement:**
    - **Basic 911 requirements**
    - **E911 Phase I**

    If so, how much time?

SBMS agrees with the information provided by the Wireless E911 Coalition. Provided carriers may take advantage of deployed technology as described in response to Question 8, last bullet, more time is generally not needed to successfully implement Basic 911 requirements. As the Wireless E911 Coalition notes, the need for an extension for

Phase 1 is directly related to what, if any, changes the FCC determines are appropriate to make to the current E911 requirements.

13. **In the Order, the Commission recognized that when non-code identified calls are transmitted to a PSAP, the PSAP may not receive ANI information allowing call back for such calls. It has recently been suggested that if a carrier transmits all 911 calls, including those not code identified, the carrier may be unable to transmit ANI for other calls. In other words, transmission of non-code identified calls might actually impair PSAP callback or other capabilities for service initialized calls from subscribers to roamers.**

    - **Are there any cases where this would occur?**
    - **If so, under what circumstances, e.g., which switches or vintages of software?**
    - **What causes this effect?**
    - **What remedies would be required to correct this problem and provide callback capability for all service-initialized callers, including roamers without automatic roaming?**

    SBMS agrees with the information provided by the Wireless E911 Coalition.

14. **What if the Commission were to establish a default that required the wireless industry to pass X type calls unless all PSAPs served by a certain switch agreed that they would all rather have Y type of calls, in which case the wireless carrier would have to accommodate the PSAPs? Is this technically feasible?**

SBMS agrees with the information provided by the Wireless E911 Coalition. Essentially, switches can only support one of two options, either pass all calls or pass calls which successfully pass validation.

Respectfully submitted,

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